

CLAIMS

WHAT IS CLAIMED IS:

1. A shackle assembly for transporting a poultry carcass suspended by its legs along a processing path and over a weighing scale track for weighing the carcass, the shackle assembly comprising:
 - a trolley support;
 - a trolley mounted to said trolley support for engaging the weighing scale track;
 - a bird carrier for suspending the poultry carcass by its legs;
 - telescopic connector means for telescopically connecting said trolley support to said bird carrier and suspending said bird carrier from said trolley support; and
 - turning means mounted to said trolley support and operatively connected to said bird carrier for rotating said trolley support and said bird carrier in unison.
- 15 2. The shackle assembly of claim 1, wherein said telescopic connector means includes one of said trolley support and said bird carrier having a tubular support rod defining a central passage and the other of said trolley support and said bird carrier having a rod extending into said central passage.

3. The shackle assembly of claim 2, wherein said telescopic connector means includes

said trolley support having a tubular support rod defining a central passage; and

said bird carrier having a rod extending into said central passage of said tubular

5 support.

4. The shackle assembly of claim 2, wherein said telescopic connector means

further includes said tubular support and said rod defining aligned openings; and wherein

said trolley includes a wheel axle extending through said aligned openings for engaging said

10 tubular support and said rod; at least one of said aligned openings also being of larger

breadth than a cross-sectional breadth of said wheel axle for permitting telescopic

movement between said tubular support and said rod in a substantially non-rotating

relationship.

15 5. The shackle assembly of claim 4 wherein said larger-breadth opening is

arranged in said tubular support rod.

6. The shackle assembly of claim 5 wherein said turning means includes a pin
for indicating an angular position of the turning means.

7. A shackle assembly for transporting a poultry carcass suspended by its legs along a processing path and over a weighing scale for weighing the carcass, the shackle assembly comprising:

- a trolley support;
- 5 a trolley mounted to said trolley support for engaging the weighing scale;
- a bird carrier for suspending a poultry carcass by its legs, said bird carrier supported by said trolley support;
- connector means for non-rotatably and telescopically connecting said bird carrier to said trolley support; and
- 10 turning means, mounted to said trolley support, for turning said bird carrier in response to engagement by a cam along the processing path.

8. The shackle assembly of claim 7, wherein said connector means comprises said trolley support and said bird carrier having overlapping ends with aligned openings extending therethrough, and said trolley having a wheel axle extending through said aligned openings.

9. The shackle assembly of claim 8, wherein said overlapping ends are adapted to move axially with respect to each other in response to the trolley passing over the 20 weighing scale.

10. The shackle assembly of claim 8, wherein said telescopic connector means includes one of said trolley support and said bird carrier having a tubular support defining a central passage and the other of said trolley support and said bird carrier having a rod 5 extending into said central passage.
11. The shackle assembly of claim 10, wherein a top end of said rod is fixed to said trolley support and a top end of said tubular support slidably receives said rod.
- 10 12. The shackle assembly of claim 11 wherein said bird carrier is fixed to a bottom end of said tubular support.
13. The shackle assembly of claim 10, wherein a top end of said tubular support is fixed to said trolley support and a bottom end of said tubular support slidably receives 15 said rod.
14. The shackle assembly of claim 13, wherein said bird carrier is fixed to a bottom end of said rod.
- 20 15. The shackle assembly of claim 9, wherein one of said aligned openings is a slotted opening.

16. The shackle assembly of claim 15, wherein said slotted opening is formed in
said rod.

17. The shackle assembly of claim 15, wherein said slotted opening is formed in
5 said tubular support.

18. The shackle assembly of claim 17, wherein said turning means includes a
pin for indicating an angular position of the turning means.

10 19. A method of processing poultry carcasses as the carcasses move along a
poultry processing path and for weighing the carcasses on a weighing scale as the carcasses
are moved along the processing path, the method comprising:

15 suspending the carcasses from a shackle having a trolley support with a trolley
attached thereto and a bird carrier connected to said trolley support, and while the carcass is
suspended:

passing the trolley over the weighing scale;
in response to passing the trolley over the weighing scale, lifting the bird
carrier with respect to the trolley support using the scale;

20 weighing the carcass as the carcass passes over the scale;
turning the carcasses about a vertical axis; and
cutting the carcass into segments.

20. The method of claim 19 wherein the step of turning the carcasses about a vertical axis comprises:

moving the trolley support along the processing path; and

engaging a cam follower mounted on the trolley support with a cam positioned

5 along the processing path.

21. The method of claim 19 wherein the step of lifting the bird carrier with respect to the trolley support comprises telescoping the bird carrier with respect to said trolley support.

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22. The method of claim 20 wherein the step of lifting the bird carrier with respect to the trolley support comprises telescoping the bird carrier with respect to said trolley support.